

### ABSTRACT OF THE DISCLOSURE

A device for detecting the rotating speed of a fan motor includes a motor and a gear case fixed on the front side of the motor. Plural gears engaging with one another are provided in  
5 the gear case and one of them is embedded with a permanent magnet and further a magnetic inductive element is also installed inside the gear case to cooperate with the permanent magnet for operating together to detect the rotating speed of the motor.